

**What Is Claimed Is:**

1           1.       A method for controlling access to files within a plurality of virtual  
2 servers, wherein the plurality of virtual servers operate within separate virtual  
3 environments on a single computing device, comprising:

4               accepting a file access request;

5               determining if the file access request originated from within a virtual  
6 server of the plurality of virtual servers, wherein the virtual server operates within  
7 a virtual environment that is insulated from other virtual environments associated  
8 with other virtual servers;

9               if the file access request originated from within the virtual server,

10              determining if the file access request is for a new file; and

11                      if the file access request is for a new file,

12                              assigning an identifier to the new file, wherein the

13                              identifier can be used to identify the virtual server, and

14                              creating the new file within a storage area

15                              associated with a computing device hosting the plurality of

16                              virtual servers.

1           2.       The method of claim 1, wherein if the file access request is for an  
2 existing file, the method further comprises:

3               retrieving the identifier assigned to the existing file;

4               determining if the identifier is associated with the virtual server that  
5 generated the file access request; and

6               if the identifier is associated with the virtual server that generated the file  
7 access request, allowing access to the existing file.

1           3.       The method of claim 2, wherein if the file access request is a  
2 request to delete the existing file, the method further comprises deleting the  
3 existing file.

1           4.       The method of claim 2, wherein if the file access request is a  
2 request to modify the existing file, the method further comprises modifying the  
3 existing file.

1           5.       The method of claim 1, wherein if the file access request is a  
2 request to allocate additional file space, the method further comprises:  
3           determining if space is remaining in the storage area associated with the  
4 computing device that is available to the virtual server; and  
5           if space is remaining in the storage area that is available to the virtual  
6 server, allocating the additional file space.

1           6.       The method of claim 1, further comprising allowing a system  
2 administrator to establish an amount of storage within the storage area associated  
3 with the computing device that is available to the virtual server within the  
4 plurality of virtual servers.

1           7.       The method of claim 1, wherein if the file access request did not  
2 originate from within the virtual server, the method further comprises:  
3           determining if the file access request is a request to update the identifier;  
4 and  
5           if the file access request is a request to update the identifier, updating the  
6 identifier.

1           8.       A computer-readable storage medium storing instructions that  
2   when executed by a computer cause the computer to perform a method for  
3   controlling access to files within a plurality of virtual servers, wherein the  
4   plurality of virtual servers operate within separate virtual environments on a single  
5   computing device, comprising:

6           accepting a file access request;  
7           determining if the file access request originated from within a virtual  
8   server of the plurality of virtual servers, wherein the virtual server operates within  
9   a virtual environment that is insulated from other virtual environments associated  
10   with other virtual servers;

11          if the file access request originated from within the virtual server,

12          determining if the file access request is for a new file; and

13               if the file access request is for a new file,

14                       assigning an identifier to the new file, wherein the  
15                       identifier can be used to identify the virtual server, and  
16                       creating the new file within a storage area  
17                       associated with a computing device hosting the plurality of  
18                       virtual servers.

1           9.       The computer-readable storage medium of claim 8, wherein if the  
2   file access request is for an existing file, the method further comprises:

3           retrieving the identifier assigned to the existing file;

4           determining if the identifier is associated with the virtual server that  
5   generated the file access request; and

6           if the identifier is associated with the virtual server that generated the file  
7   access request, allowing access to the existing file.

1           10.     The computer-readable storage medium of claim 9, wherein if the  
2 file access request is a request to delete the existing file, the method further  
3 comprises deleting the existing file.

1           11.     The computer-readable storage medium of claim 9, wherein if the  
2 file access request is a request to modify the existing file, the method further  
3 comprises modifying the existing file.

1           12.     The computer-readable storage medium of claim 8, wherein if the  
2 file access request is a request to allocate additional file space, the method further  
3 comprises:  
4           determining if space is remaining in the storage area associated with the  
5 computing device that is available to the virtual server; and  
6           if space is remaining in the storage area that is available to the virtual  
7 server, allocating the additional file space.

1           13.     The computer-readable storage medium of claim 8, further  
2 comprising allowing a system administrator to establish an amount of storage  
3 within the storage area that is available to the virtual server within the plurality of  
4 virtual servers.

1           14.     The computer-readable storage medium of claim 8, wherein if the  
2 file access request did not originate from within the virtual server, the method  
3 further comprises:  
4           determining if the file access request is a request to update the identifier;  
5 and

6 if the file access request is a request to update the identifier, updating the  
7 identifier.

1 15. An apparatus that facilitates controlling access to files within a  
2 plurality of virtual servers, wherein the plurality of virtual servers operate within  
3 separate virtual environments on a single computing device, comprising:  
4 an accepting mechanism that is configured to accept a file access request;  
5 a first determining mechanism that is configured to determine if the file  
6 access request originated from within a virtual server of the plurality of virtual  
7 servers, wherein the virtual server operates within a virtual environment that is  
8 insulated from other virtual environments associated with other virtual servers;  
9 a second determining mechanism that is configured to determine if the file  
10 access request is for a new file;  
11 a creating mechanism that is configured to create the new file within a  
12 storage area associated with a computing device hosting the plurality of virtual  
13 servers if the file request is for a new file; and  
14 an assigning mechanism that is configured to assign an identifier to the  
15 new file, wherein the identifier can be used to identify the virtual server.

1 16. The apparatus of claim 15, further comprising:  
2 a retrieving mechanism that is configured to retrieve the identifier assigned  
3 to an existing file;  
4 a third determining mechanism that is configured to determine if the  
5 identifier is associated with the virtual server that generated the file access  
6 request; and  
7 an accessing mechanism that is configured to allow access to the existing  
8 file if the identifier is associated with the virtual server that generated the file.

1           17.     The apparatus of claim 16, further comprising a deleting  
2 mechanism that is configured to delete the existing file if the file access request is  
3 a request to delete the existing file.

1           18.     The apparatus of claim 16, further comprising a modifying  
2 mechanism that is configured to modify the existing file if the file access request  
3 is a request to modify the existing file.

1           19.     The apparatus of claim 15, further comprising:  
2           a fourth determining mechanism that is configured to determine if space is  
3 remaining in the storage area associated with the computing device that is  
4 available to the virtual server; and  
5           an allocating mechanism that is configured to allocate additional space  
6 from the storage area.

1           20.     The apparatus of claim 15, further comprising an establishing  
2 mechanism that is configured to allow a system administrator to establish an  
3 amount of storage within the storage area that is available to the virtual server.

1           21.     The apparatus of claim 15, further comprising:  
2           a fifth determining mechanism that is configured to determine if the file  
3 access request is a request to update the identifier; and  
4           an updating mechanism that is configured to update the identifier if the file  
5 access request is a request to update the identifier.